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Civil Engineering

**PLANNING AND PROGRAMMING
APPROPRIATED FUNDED
MAINTENANCE, REPAIR, AND
CONSTRUCTION PROJECTS**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directive (AFPD) 32-10, *Installations and Facilities*. It provides guidance and instruction for planning and programming projects for real property classified as maintenance, repair, unspecified minor military construction, and facilities for operational requirements using operation and maintenance (O&M) funds. To ensure a full understanding of the process of providing unspecified minor military construction, facilities for operational requirements, and maintenance and repair support to real property, users of this instruction should also be familiar with other Air Force 32-(Civil Engineer) and 65-(Budget) series publications. (AFI 65-601, Volume I, *Finance Management, Budget Guidance and Procedures*, is particularly important for determining funded and unfunded costs for all projects.) Forward any issue not fully addressed by this instruction to the major command (MAJCOM) or Air Staff for clarification. MAJCOMs may supplement this instruction to include command-unique requirements.

Records Disposition. Maintain and dispose of all records created by processes prescribed in this publication IAW AFMAN 37-139, *Records Disposition Schedule*.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

It replaces real property maintenance (RPM) references with more appropriate sustainment, restoration and modernization (SRM) terminology throughout. It also provides definitions of the sustainment, restoration and modernization funding categories; updates the Element of Expense Investment Code (EEIC) table; and provides examples of SRM in [Attachment 3](#). It updates examples and current interpretations. It also adds current direction on the Facility Investment Metric (FIM). It includes significant changes to O&M programming policy including: permitting the movement of existing interior load-bearing members within a facility as repair; deleting the automatic designation as construction of the conversion of a facility or portion of a facility from one primary function to another (making it a case-by-case determination based on the planned work) ; permitting projects solely to correct force protection deficiencies to be con-

sidered as life, safety, or health-threatening measures under 10 U.S.C. 2805; a modification to the 70% rule on facility repairs; and a change in the required approval level and dollar threshold for troop labor projects and augmenting the in-house work force. It updates and better defines the authority to construct facilities supporting operational requirements, as previously defined by an interim change to this AFI.

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Chapter 1

OVERVIEW

1.1. Purpose. The purpose of this instruction is to provide instruction and guidance for those responsible for planning, programming, and executing cost-effective O&M-funded unspecified minor military construction, facilities for operational requirements, and maintenance and repair projects for real property in compliance with law and Department of Defense (DoD) and Air Force policies.

1.2. Responsibilities:

1.2.1. Deputy Assistant Secretary of the Air Force (Installations) (SAF/IEI). SAF/IEI establishes and provides oversight of policies relating to real property, real property systems and components, and engineering services, and grants waivers to those policies in appropriate circumstances. SAF/IEI is the approval authority for facility projects exceeding a certain cost or of a certain type.

1.2.2. The Civil Engineer (HQ USAF/ILE). HQ USAF/ILE provides programming guidance, oversight, and policy as required. HQ USAF/ILE reviews, validates, and approves O&M-funded projects classified as repair, unspecified minor military construction, or for operational requirements exceeding the Active Air Force MAJCOM commander's delegated approval authority. HQ USAF/ILE, through the Installation Support Panel, makes recommendations to the Assistant Secretary of the Air Force for Financial Management (SAF/FM), and the Air Force Group, Board, and Council on requirements for, and appropriate allocation of, resources. The Air National Guard (ANG) and Air Force Reserve Command (AFRC) Civil Engineer will process packages for SAF/IEI approval for O&M-funded (repair or unspecified minor military construction) projects exceeding approval authority of their MAJCOMs.

1.2.3. MAJCOMs. MAJCOMs provide oversight to ensure compliance with law and DoD and Air Force policies. MAJCOMs are responsible for establishing quality standards; providing command-unique guidance to supplement Air Force policies, procedures, and instructions; validating requirements identified by their installations; developing and advocating command budgets for SRM projects; promoting timely obligation of funds; project approval within delegated approval authorities; and execution of projects. The ANG and AFRC Civil Engineer perform these MAJCOM functions for their installations.

1.2.4. United States Property and Fiscal Officer (USPFO).

1.2.4.1. The USPFO is accountable for all ANG property with a federal interest.

1.2.4.2. The USPFO may approve funding projects as shown in [Table 1.1](#). Submit projects greater than these limits to ANG/CEP. The USPFO may delegate some or all of this authority to the installation commander.

1.2.5. Air Force Civil Engineer Support Agency (AFCESA) and the Air Force Center for Environmental Excellence (AFCEE). AFCESA and AFCEE provide technical engineering guidance, assistance, and services.

1.2.6. Installation Commander. The Installation Commander has overall responsibility and accountability for the operation of an Air Force installation. The Installation Commander, assisted by the Base Civil Engineer (BCE), is responsible and accountable to ensure all work accomplished for the Air Force on Air Force owned/controlled real property is properly authorized and funded in accor-

dance with all laws, policies, and regulations. The Commander is also responsible for (1) ensuring the effective and efficient use of Air Force real property; and (2) planning and programming all O&M-funded unspecified minor military construction and maintenance and repair for real property requirements necessary to properly support assigned missions and people (including tenants) and to care for and preserve Air Force real property.

1.2.7. The Surgeon General (HQ USAF/SG).

1.2.7.1. HQ USAF/SG advocates for and distributes resources to MAJCOM/SGs for O&M-funded (Defense Health Program funds) unspecified minor military construction and maintenance and repair of medical facilities.

1.2.7.2. Air Force Medical Support Agency/Health Facilities Division (HQ AFMSA/SGSF) provides technical and functional design guidance for medical facilities.

1.2.7.3. Air Force Medical Logistics Office/Engineering, Facilities, Equipment & Procurement Branch (AFMLO/FOM) provides Planning, Programming, and Budgetary guidance, direction and oversight as required to the MAJCOMs for using appropriated funds for medical SRM projects.

1.3. Scope. This instruction provides general procedures for planning, programming, and executing O&M-funded projects for real property classified as maintenance, repair or unspecified minor military construction. It applies to all projects, including, but not limited to, those planned for accomplishment by organic forces (which include overhires and temporary duty augmentees), troop labor, or contract (including Simplified Acquisition of Base Engineer Requirements (SABER)). This instruction addresses only O&M-funded unspecified minor military construction, facilities for operational requirements, and maintenance and repair projects for real property. These funds are normally in the 3400 appropriation (3740 for AFRC and 3840 for ANG), but may include 3600, Research, Development, Test and Evaluation (RDT&E); Working Capital Fund (WCF); or Defense SRM accounts when made available for O&M purposes. See AFI 32-1001, *Operations Management*, for guidance on functions at the installation level.

1.3.1. A project is unspecified minor military construction, operational requirement, or a plan of maintenance and repair work necessary to produce complete and usable real property or real property systems or components, or a complete and usable improvement to real property or real property systems or components. Projects are not defined by a dollar amount, but commands may find it useful to designate a limit for work management purposes. This instruction does not address:

1.3.1.1. Construction work funded by Military Construction Appropriations (MCA), including MCA-funded unspecified minor military construction (commonly referred to as P-341). See AFI 32-1021, *Planning and Programming Military Construction Projects*.

1.3.1.2. Nonappropriated Fund Instrumentalities work. See AFI 32-1022, *Planning and Programming Nonappropriated Fund Facility Projects*.

1.3.1.3. Military family housing work. See AFI 32-6002, *Family Housing Planning, Programming, Design and Construction*.

1.3.2. Maintenance and repair are classes of work that are different from construction, whether O&M-funded unspecified minor military construction, MCA-funded unspecified minor military construction, or MILCON. Not only do funding sources at times differ, but the nature of work is different. As noted in **Chapter 4**, maintenance and repair do not change the nature of a facility, but simply ensure it can continue to be used effectively. Repair does not normally increase the volume or foot-

print of a building , although it may result in greater usable floor space due to reconfiguration of the interior.

1.4. Approval Levels. By Secretary of the Air Force Order (SAFO), 715.2 for the Active Component and 714.1 for the Reserve Components, the Secretary's authorities under 10 U.S.C. §2805 (10 U.S.C. §18233 for Reserve Components) and 10 U.S.C. §2811 have been delegated to SAF/IE, who has further delegated them to SAF/IEI. **Table 1.1.** and **Table 1.2.** provide the approval levels hereby delegated by SAF/IEI for O&M-funded unspecified minor military construction, operational requirements, maintenance, and repair projects.

1.4.1. AF/ILE may, by memorandum, further delegate its approval authority for O&M-funded unspecified minor military construction, maintenance and repair projects. Delegations for ANG and AFRC are accomplished by the Chief, National Guard Bureau and the Chief of the Air Force Reserves respectively.

1.4.2. SAF/IE and SAF/IEI may, for particular projects, reduce or otherwise impose restrictions on the approval levels delegated by **Table 1.1.** and **Table 1.2..**

Table 1.1. O&M Funded Unspecified Minor Military Construction Approval Levels.

	SAF/IE	SAF/IEI	AF/ILE ¹	MAJCOMs	Installations
Life, health or safety-threatening deficiencies	NTE \$1,500,000	NTE \$1,500,000	NTE \$750,000	As delegated	As delegated
Facilities for Operational Requirements	No limit ²	No limit ²			
All others	NTE \$750,000	NTE \$750,000	NTE \$750,000	As delegated	As delegated

Table 1.2. Maintenance and Repair Approval Levels.

	SAF/IE	SAF/IEI	AF/ILE ¹	MAJCOMs	Installations
Maintenance	Unlimited	Unlimited	Unlimited	Unlimited ⁵	Unlimited ⁵
Repair	Unlimited ³	Unlimited ³	NTE \$5,000,000 ^{3,4}	As delegated	As delegated

1. Includes the Air Force Civil Engineer; Director, Secretary of the Air Force Space Launch; Chief of Air Force Reserve; and Chief of Air National Guard.
2. Requires concurrence of the Undersecretary of Defense (Comptroller) (USD(C))
3. Repair projects over \$7,500,000 require Congressional notification.
4. See approval limitations in paragraph **4.4.**
5. For Reserve Components, as delegated.

Chapter 2

PLANNING

2.1. Planning Defined. Planning is the identification of a scope of work of facility requirements to satisfy current and future mission needs. It should address the ultimate goal to be achieved as well as including the specific work required. Only by identifying the ultimate goal for a facility can planners successfully plan multi-year phased maintenance and repair projects and any needed construction projects.

2.2. Facility Requirement Identification and Approval. The BCE uses a variety of methods to identify facility requirements, including, but not limited to: projections of mission changes; base comprehensive planning; space utilization surveys; installation condition surveys (pavements, roofs, etc.); assessments of compliance with environmental, safety, security, and other laws, codes, and regulations; energy conservation surveys and audits; and user or occupant identified requirements.

2.3. Planning Determinations. After user requirements are defined, the BCE determines: (1) special technical engineering requirements; (2) project cost estimates; (3) most life-cycle cost-effective solutions; (4) energy conservation projects (see paragraph [6.7.](#)); and (5) work classification (see paragraph [3.3.](#)).

Chapter 3

PROGRAMMING

3.1. Programming Defined. Programming is the process of acquiring both the authority and the resources necessary to accomplish planned work. (See AFI 32-7001, *Environmental Budgeting*, for additional guidance on programming environmental projects.)

3.2. Prioritization. After facility requirements are identified, the BCE will develop facility project programming proposals and present them for approval by the proper authority. Prioritizations will normally be based on local policy. See AFPD 32-10, *Installations and Facilities*, for prioritization guidance. For ANG, the Base Facilities Board (FB) does prioritization of facilities. MAJCOMs prioritize projects consistent with current AF programming guidance.

3.3. Work Classification . One of the keys to properly program facility requirements is work classification. Work authorization and approval levels and appropriate funding sources vary with work classification, i.e., with the type of work necessary to accomplish facility requirements in the most life-cycle cost-effective manner. Most often, SRM O&M work will be classified as maintenance or repair. However, there may be instances when work that could be classified as maintenance or repair will be accomplished as construction, either because it is part of a very large project or because a decision has been made to use other available funding mechanisms, such as Military Construction Appropriations (MCA) funded unspecified minor military construction.

3.3.1. Demolition . The removal of a facility (or portion of a facility) unrelated to any O&M-funded unspecified minor military construction project or maintenance or repair project is not considered to be a special class of real property sustainment work. Contract costs for such independent facility removal work should be charged to PE***93F, Element of Expense Investment Code (EEIC) 592, Miscellaneous Contract Services, and cost account code 60000. If demolition work is required to accomplish an O&M-funded unspecified minor military construction project or a sustainment or repair project, the cost for demolition or removal work is a cost of the associated project and will be funded as an integral part of the associated project and carries the same class of work as the associated project. See AFI 32-9004, *Disposal of Real Property*, and AFI 32-9007, *Managing Air Force Real Property*, Chapter 4, for Air Force property disposal procedures.

3.3.1.1. Facility Consolidation. Beginning in FY04, installations may consider using funds from PE ***93F to repair or add to existing facility space for the purpose of consolidating base functions into one facility and thereby demolish the resulting excess facility space. Work may be accomplished under the following stipulations:

3.3.1.1.1. The end result of accomplishing required repairs and/or minor construction will be to demolish facility space occupied by functions being relocated to the repaired/newly constructed space.

3.3.1.1.2. Work classified as repair will be properly costed against EEIC 522, minor construction work will be costed against EEIC 529, and demolition work will be costed against EEIC 592.

3.3.1.1.3. Proposed work must be within the limitations and work classification descriptions established for O&M-funded repair and minor construction work as described in Chapters 4 and 5 of this AFI.

3.3.2. **Non-Construction/Repair Work.** The BCE may perform other types of work which are not directly related to O&M-funded unspecified minor military construction or repair and which do not fit the work categories described in this instruction. Examples include burying communication cables, work on non-real property equipment (e.g., equipment listed on the Equipment Authorization Inventory Data (EAID) account), or installing raised flooring or non-capitalized air conditioning to support computer equipment (see AFI 65-601, Volume 1, *Budget Guidance and Procedures*). This type of work is not subject to the limitations placed on O&M-funded unspecified minor military construction or repair work.

3.3.3. **Work on Non-DoD Property.** 10 U.S.C. §2012 authorizes certain support and services to eligible organizations and activities outside the Department of Defense for the purpose of addressing community and civic needs when such assistance is incidental to military training or otherwise authorized by law. The purpose is to build upon the long-standing tradition of the Armed Forces, acting as good neighbors at the local level, in applying military personnel to assist worthy civic and community needs. See DoD Directive 1100.20, *Support and Services for Eligible Organizations and Activities Outside the Department of Defense*, and AFI 32-9001, *Acquisition of Real Property*, for further guidance.

3.4. Planning, Programming, and Accomplishing Projects. Plan and program projects to effectively support the mission. Each O&M-funded unspecified minor military construction, maintenance, or repair project must provide a complete and usable facility or improvement to a facility. Therefore, it essential that the facility requirement is fully defined. For example; if the "requirement" is defined as billeting for thirty airmen, then the solution is a facility or a complex of individual facilities that are constructed in a single requirement (i.e., project or set of projects) subject to the appropriate statutory limitations.

3.4.1. **Phasing.** A project may be phased to minimize the impact of work on a facility's mission. For phased projects which extend over multiple years, work accomplished in each year must result in a complete and useable improvement at phase completion. **Do not split projects into increments to circumvent approval authorities, reporting requirements, or programming policy. Be sure to include all phases when determining appropriate approval levels.**

3.4.2. **Work on New Facilities.** As a matter of policy, do not modify newly constructed facilities within 12 months of the beneficial occupancy date (BOD) unless the modification is necessitated by a mission or equipment change which was unforeseen prior to BOD. Do not use O&M funds to correct deficiencies in MCA-funded projects.

3.4.3. **Concurrent Work.** To the extent possible, construction, maintenance, and repair requirements for a particular facility should be accomplished concurrently to take advantage of economies of scale.

3.4.3.1. Each concurrent project in a facility must result in a complete and usable improvement without being dependent on another project. The programming documents for concurrent projects must be cross-referenced.

3.4.3.2. There may be instances when it is cost effective or otherwise prudent to have a particular type of construction, maintenance, or repair work accomplished on several facilities at the same time, even though one or more of those facilities may also have other, concurrent construction,

maintenance, or repair requirements; e.g., a multi-facility asbestos abatement program might be desirable even though one or more affected facilities also are in need of other repair.

3.4.4. Facility Security. Force protection will be a primary consideration in the planning, programming, and design of Air Force facilities and utilities. All new construction and any renovations, regardless of funding source, that exceed 50% of the replacement cost or change the use of the facility must comply with the DoD Minimum Antiterrorism Standards for Buildings, United Facilities Criteria (UFC) 4-010-01. Advice and assistance of security specialists and numerous references governing threat assessment, force protection, and physical security will guide programmers and designers in the preparation of facility criteria and final plans and specifications for all Air Force facilities and utilities. Refer to DoDD 2000.12, *DoD Combating Terrorism*; DoDD 5200.8, *Security of DoD Installations and Resources*; DoDI-O-2000.16, *Combating Terrorism Program Standards*; AFI 65-601, Volume 1, *Budget Guidance and Procedures*; AFH 32-1084, *Facility Requirements* for additional information.

3.4.5. Obsolete Facilities. Limit construction, maintenance, and repair work in facilities identified for disposal to the minimum required to ensure safety and security, to protect health and the environment, and to permit the facility to accomplish its mission.

3.4.6. Temporary Facilities. Site work (foundations, utilities, parking, walkways, patios and other recreational support structures) for temporary facilities, to the extent it is not permanent and will be removed when the project is complete, will be funded as maintenance or repair if it supports a maintenance or repair project, and as unspecified minor military construction if it supports an unspecified minor military construction project. If it will not be removed when the project is complete, it will be funded as construction. Site work is not a separate project when it is accomplished to support temporary facilities that are supporting a maintenance, repair, or unspecified minor military construction project. See AFI 32-1021, *Planning and Programming Military Construction Projects*, for more guidance on use of relocatable buildings and temporary facilities.

3.4.7. Communications Prewiring. Refer to the policy contained in ETL 02-12, *Communications and Information System Criteria for Air Force Facilities*, and AFI 65-601, Volume I, *Budget Guidance and Procedures*, for guidance on communications prewiring for O&M-funded sustainment, restoration and modernization projects.

3.4.8. Contamination Cleanup. Removal and disposal of contaminated material (e.g., soil, fuel, asbestos containing material, etc.) that is identified in anticipation of or during a facility maintenance, repair, or construction project (within the project footprint) will be funded by the project.

3.4.9. Military Family Housing. In accordance with Public Law 107-248, use of SRM(O&M) funds is prohibited for maintenance, repair, and construction on military family housing units, including areas in such units that may be used for the purpose of conducting official Department of Defense business.

3.5. Project Documentation. The BCE will prepare appropriate project documentation based on the work classification and total funded cost of a facility project.

3.5.1. Document projects within installation approval authority on AF Form 332, *Base Civil Engineer Work Request*; AF Form 327, *Civil Engineering Work Order*; or DD Form 1391, *FY ____ Military Construction Project Data*. All projects exceeding Installation Commander approval authority must be documented on a DD Form 1391. See [Attachment 2](#) for guidance on preparing DD Forms 1391/1391c.

3.5.2. Project documents (DD Form 1391, or AF Form 332 or 327) must be signed by an appropriate approving official and must include an approval date.

3.5.3. All project documents must be sufficient to allow an independent reviewer to understand the requirement, the benefit, the classification of work, the total cost (funded and unfunded), current impact to installation mission, the impact if not provided, and the timing of project requirements, including all potential phases.

3.5.4. User organizations must help develop a project's scope and justification (e.g., current impact to installation mission, mission requirement and impact if the project is not accomplished) for user originated projects.

3.5.5. The appropriate approval authority must verify that a project is programmed according to this instruction before signing and dating the approval document. DD Forms 1391 forwarded to AF/ILE for approval must contain the following signed certification from the MAJCOM Civil Engineer Programmer (CEP): **"I have reviewed this document and certify it is complete and accurate. I have validated the project's primary and supporting costs and work classification. It has been fully coordinated with the user and other appropriate agencies and approved by the Installation Commander."**

3.5.6. IAW AFI 65-501, *Economic Analysis*, the Base Civil Engineer must notify financial analysis offices when an economic analysis must be accomplished because investment costs equal or exceed \$2 million. For relocatable buildings, the threshold for the economic analysis requirement is \$1 million or annual recurring costs over \$200,000.

Chapter 4

MAINTENANCE AND REPAIR

4.1. Maintenance and Repair Authority.

4.1.1. **Maintenance (EEIC 521).** Maintenance is work required to preserve real property and real property systems or components and prevent premature failure or wearing out of the same. Maintenance includes work to prevent and arrest component deterioration, as well as landscaping or planting work done in conjunction with a facility repair project, which is not capitalized.

4.1.2. **Repair (EEIC 522 and 524).** Repair means to restore real property and real property systems or components to such condition that they may effectively be used for their designated functional purposes. Real property and real property systems or components need not have failed to permit a repair project. See Paragraph 6.1. of this instruction for further definition and guidance on appropriate use of EEICs for repair.

4.1.2.1. Existing components of a facility may be repaired by replacement, and replacements may be up to current Industry, Federal, DoD or AF standards or codes. As examples, repair may include the following:

4.1.2.1.1. Existing heating, ventilation, and air conditioning (HVAC) equipment can be replaced with functionally sized, state-of-the-art equipment. (Note: Installation of HVAC where none exists or replacement of window air conditioners with a central system is construction.)

4.1.2.1.2. Interior rearrangements and restorations of an existing facility, including provision of mezzanines to increase usable floor space, can be classified as repair if they allow for effective use of existing space or to meet current building standards and code requirements (for example, accessibility, health, safety, seismic, security, and fire). For the purposes of this AFI, a mezzanine is defined as an intermediate story in a facility, not exceeding 25% of the useable footprint of the story immediately below. A mezzanine is not to be a complete additional story of a facility.

4.1.2.1.3. Replacement of one type of roof system (e.g., a flat roof) with another, more reliable or economical type of roof (e.g., sloped roof). However to be considered repair, the new roof must be supported by the existing structural members of the facility.

4.1.2.1.4. Installation of exterior appurtenances as a means of complying with building codes and access laws; for instance, fire escapes and elevators (even if enclosed), ramps directly adjoining facilities, and reservoirs, pipes, and pumps that are integral parts of interior fire protection system installations.

4.1.2.1.5. Installation of force protection measures outside the foundation footprint of the facility they protect, if specific to that facility. Unlike other aspects of a facility's infrastructure, force protection (security) measures often must extend beyond the foundation of the facility to be effective. To the extent that the force protection measures are installed for the protection of a particular facility, they may still be considered repair of that facility, even though they are located outside the footprint of the facility. This is not intended to permit an increase in the footprint of a facility. Installation of new force protection measures associated with multiple buildings or a whole installation (e.g., fence) would be construction class work.

4.1.2.1.6. Installation of backflow prevention devices in accordance with building/uniform plumbing code on drinking water systems.

4.1.2.2. Although repair and construction overlap to some degree, there is a line constituting construction beyond which repair may not go. As examples, repair does not include the following:

4.1.2.2.1. Expansion of any part of a facility's foundation system beyond its current footprint and elevation, or expansion of functional space, including, but not limited to, ground level landings and sidewalk systems, balconies, and new basement areas.

4.1.2.2.2. Increases to a facility's total volume, although increases in usable floor space and interior volume are properly classified as repair if they result from reorganizing the existing space within a facility.

4.1.2.2.3. Installation of types of equipment not presently installed (e.g., upgrading an existing ventilation system with air conditioning) unless required to comply with accessibility, health, safety, seismic, security or fire standards and codes. For those types of equipment that are considered as Real Property Installed Equipment (RPIE), a representative list is found in AFI 32-9007.

4.1.2.2.4. All work required to relocate a facility, including transportation, site work at the new location, and restoration of the vacated site.

4.1.2.2.5. Upgrading the surface of unpaved roads, walks, trails, parking areas, driveways, runways, and taxiways. For instance, converting from compacted soil to crushed rock/gravel or from crushed rock/gravel to asphalt pavement.

4.1.2.2.6. Increasing the dimensions of paved surfaces, except to comply with applicable code(s) or Air Force standard(s).

4.1.2.2.7. Changing the permanent route of roads, walks, trails, or other real property transportation systems, except when done solely to reduce the cost resulting from, or to avoid, unacceptable traffic disruption during repair. However, costs to temporarily reroute traffic during repair projects are an integral part of the repair and should be classified as repair.

4.1.2.2.8. Installation of real property walkways.

4.1.2.2.9. Installation of roadway accessories such as curbs and gutters, not currently in place.

4.1.2.2.10. Installation of bicycle or jogging paths and related benches, lighting, or other real property support structures.

4.1.2.2.11. Work which entails complete replacement of a vertical section of any building, including a substantial portion of its foundation system. For instance, replacement to the same dimensions and in the same footprint of a 1,000 SF wing of a 10,000 SF facility, including a substantial portion of that wing's foundation, is properly classified as construction. This does not apply to foundation work required solely to correct seismic deficiencies.

4.1.2.2.12. Installation of underground storm water conveyance systems not currently in place.

4.1.2.2.13. Adding or expanding utility service (water, electric, etc.) to a section of a building that currently does not have it.

4.1.2.2.14. Add an additional story (beyond a mezzanine) within the existing footprint and volume of a facility.

4.1.2.3. Replacement. The decision to replace, rather than repair, a facility should be based on sound engineering judgment, economic analysis, and be in the long term best interests of the Air Force.

4.1.2.4. Companion Projects. When repair work is to be done in a facility and a companion construction project is also necessary to allow the work to be complete and usable, both the repair and the minor construction work must be programmed together, but with costs identified separately, with the repair classified as EEIC 522 or 524 appropriately and the minor construction classified as EEIC 529. For example, if a dormitory repair (reconfiguration) requires construction of balconies to be complete and usable, a single project, with the reconfiguration work classified as repair and the balcony work classified as construction, will be programmed.

4.2. Maintenance Funding. Maintenance is funded using O&M funds. There is no limitation on the amount of O&M funds that may be used for maintenance. For Reserve Components, see [Table 1.2.](#) for approval levels.

4.3. Repair Funding. Repair of facilities or functional areas of multipurpose facilities, using O&M funds, is authorized by 10 U.S.C. §2811. There is no limitation on the amount of O&M funds that may be used for repair, but there are approval and notification requirements, depending upon the amount getting expensed.

4.4. Approval and Notification Levels.

4.4.1. Section 2811 of Title 10, United States Code (10 U.S.C. §2811), requires Secretary of the Air Force approval for O&M-funded repair projects costing more than \$5,000,000; that authority has been delegated to SAF/IEI. Failure to obtain SAF/IEI's approval before funds are committed on any phase of such a project may expose personnel to an Anti-Deficiency Act violation.

4.4.1.1. 10 U.S.C. §2811 requires all *current repair requirements* in a facility be considered when determining the appropriate approval authority for a repair project. To make that determination, the estimated cost of all phases of a repair project and the estimated cost of all other *current repair requirements* for the same facility must be totaled to determine if the \$5,000,000 limit has been reached. The cost to design repair projects and O&M-funded unspecified minor military construction will not be included in this total.

4.4.1.1.1. For the purposes of 10 U.S.C. §2811, the phrase *current repair requirements* used in this paragraph (4.4.) means anticipated repair requirements in a facility that have not been executed (no funds committed) but which are needed and planned for accomplishment (the funded program) during the current or following fiscal year. All phases of a repair project projected to run consecutively from year to year even though they extend beyond the current and following fiscal years should also be included in the *current repair requirements*.

Table 4.1. Example of Combining O&M Repair Costs.

<p>BUILDING XXX:</p> <p>Current FY: \$1,500,000 multi-phase, multi-year plumbing project. \$2,500,000 HVAC repair identified last year, and the contract has been awarded.</p> <p>Next FY: \$4,000,000 of other repair requirements (\$2,000,000 of which had received earlier approval by SAF/IEI) which are planned to be executed before the end of the FY.</p> <p>In this case the \$1,500,000 plumbing project must be approved by SAF/IEI before funds are committed for any part of the effort because <i>current repair requirements</i> for the facility total \$5,500,000:</p> <p>The HVAC repair was identified before the current known requirements. Since it was formulated before the current requirements and funds are obligated, it does not fit the definition of <i>current repair requirements</i> in paragraph 4.4.1.1.1. It is not added in determining whether the \$5,000,000 limit has been reached.</p> <p>The \$1,500,000 plumbing project is a single project with multiple phases. Though phases extended beyond the Next FY, all phases are added in determining whether the \$5,000,000 limit has been reached.</p> <p>The \$4,000,000 planned to be funded and executed Next FY, including the \$2,000,000 of those requirements already approved by SAF/IEI, have not been executed. Therefore, those requirements must be included when determining the approval level for the plumbing project.</p> <p>The DD Form 1391 for the plumbing project must document the cost of each of its phases as well as other <i>current repair requirements</i>, whether or not the plumbing project and the other requirements had been approved for accomplishment previously. As demonstrated in this example, repair approval levels specified in Table 4.2. are not applied just to individual projects; they are also applied to multiple repair requirements in a facility.</p>
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4.4.1.1.2. Do not time manage the programming of a repair project or ignore repair requirements to influence a project's appropriate approval level.

4.4.1.2. Once approval for a scope of work is obtained in accordance with this paragraph (4.4.1.) repairs may proceed without further review under 10 U.S.C. §2811. However, if the project's cost increases for any reason to the point where it, in combination with other *current repair requirements* in the same facility, exceeds \$7,500,000, see paragraph 4.4.2.

4.4.1.3. Failure to obtain SAF/IEI's approval, where required, prior to the commitment of funds is a statutory violation. Obtain SAF/IEI's approval prior to starting repairs if additional phases of the same project are likely, or other current repair requirements in the same facility may collectively cost more than \$5,000,000. Funds may not be obligated until SAF/IEI's approval is obtained.

4.4.1.4. The limitations of this paragraph (4.4.1.) do not apply to emergency repairs required solely to correct a life, health, or safety threatening deficiency; except when the emergency repair project standing alone is in excess of \$5,000,000, in which case that emergency repair project

must be approved by SAF/IEI in advance of obligation of funds (without regard to other pending non-emergency repair projects).

4.4.2. O&M-funded repair projects estimated to exceed \$7,500,000 must be reported to Congress, and may not proceed until AF/ILE notification to the MAJCOM, of congressional approval. Requests for SAF/IEI approval of projects over \$5,000,000 that are estimated to exceed \$7,500,000 will be reported to Congress after review and approval by SAF/IEI. If, after SAF/IEI approves an over \$5,000,000 but less than \$7,500,000 O&M-funded repair project, it becomes obvious project costs will, for any reason, exceed \$7,500,000, no further phases of the project will start until after SAF/IEI has made the necessary report to Congress. Additionally, if the current phase will itself cause the project to exceed \$7,500,000, increased expenditures on that phase should be kept under \$7,500,000, while avoiding unnecessary delay claims, pending a report to Congress. Do not proceed with obligation of funds until AF/ILE notification that the congressional review period has ended. See [Attachment 2](#), Paragraph [A2.14](#), for details on the contents of a project approval package. ANG/CE and AFRC/CE will work directly with SAF/IEI to obtain necessary approvals and notifications for O&M-funded projects.

4.5. Project Cost Increases . As a matter of policy intended to help provide prudent oversight of major repairs to facilities, a repair project approved by SAF/IEI at a cost in excess of \$5,000,000 may not exceed 125% of the approved amount without reapproval by SAF/IEI.

Chapter 5

UNSPECIFIED MINOR MILITARY CONSTRUCTION

5.1. Unspecified Minor Military Construction Authority (EEIC 529).

5.1.1. **Construction.** *Construction* means to build, develop, convert, or extend real property and real property systems or components. The product of a construction project must be complete and independently functional for its intended purpose. Although the conversion of a facility from one primary function to another does not automatically constitute construction class work, examples of construction class work provided in [Chapter 4](#) and this chapter are still applicable for planned facility requirements. Make sure that work for facility conversions is classified properly in accordance with this guidance. Refer to AFI 32-1021, *Planning and Programming Military Construction Projects*, for more detailed information on the classification of work as construction.

5.1.2. **Unspecified Minor Military Construction.** O&M-funded unspecified minor military construction projects (often referred to as Minor Construction) are authorized by 10 U.S.C. §2805(c) (10 U.S.C. §18233a(b) for Reserve Components). MCA-funded unspecified minor military construction projects (often referred to as P-341) are authorized by 10 U.S.C. §2805(a) (10 U.S.C. §18233(a) for Reserve Components) and are unlike O&M-funded unspecified minor military construction projects both in funding source and permissible project size.

5.1.2.1. O&M-funded unspecified minor military construction projects may not exceed \$750,000 in cost, except for projects intended solely to correct a deficiency that is life, health, or safety threatening, in which case the cost may not exceed \$1,500,000. *Projects solely to correct existing force protection deficiencies are considered in the life/health/safety category.* Projects solely to correct a life, health, or safety threatening deficiency and that cost more than \$750,000 must have the prior approval of SAF/IEI and require prior congressional notification. **Failure to obtain this prior approval or provide this prior notification is an Anti-Deficiency Act violation.**

5.1.2.2. Unspecified minor military construction projects may not be used to construct new military family housing units.

5.1.2.3. In addition to the examples provided in paragraph [4.1.2.2.](#) of this instruction, the following will, as a minimum, be classified as construction and, subject to the other limitations in this instruction, will qualify as unspecified minor military construction:

5.1.2.3.1. Creating new or enlarging existing real property facilities (volume or footprint) or expanding the coverage of real property facility systems or components which are not inside a building. However, during repair, these systems may be resized to current requirements (for example, replacing 8-inch pipe with 12-inch pipe) plus some allowance for possible future growth is repair.

5.1.2.3.2. Repair work when replacement of the facility is more cost effective. If proposed repairs exceed 70 percent of a facility's replacement cost, an economic analysis must accompany the DD Form 1391 documenting that repair is more cost effective than constructing a new facility. MAJCOM Civil Engineers must approve requests to perform facility repairs which exceed 70% of the facility's replacement cost. In no case shall the cost of facility repairs exceed the replacement cost of the facility. This is a matter of policy and will not apply where

a facility is being repaired in lieu of replacement because it is on the national or state historic register.

5.1.2.3.3. Purchase and installation of real property installed equipment (RPIE) when part of a construction project.

5.2. Unspecified Minor Military Construction Funding. The source of funds for unspecified minor military construction can be either O&M or MCA. This instruction only covers unspecified minor military construction funded with O&M funds. MCA-funded unspecified minor military construction is covered in AFI 32-1021, *Planning and Programming Military Construction Projects*.

5.3. Consolidating Projects:

5.3.1. As a matter of policy, all known unspecified minor military construction work required for a facility within the next 24 months, whether O&M or MCA-funded, should be planned and programmed for accomplishment as a single unspecified minor military construction project. Do not combine funds from different appropriations (i.e., O&M, P-341-Unspecified Minor Military Construction funded from the Military Construction Program appropriations, NAF) for a single unspecified minor military construction project. MAJCOM Civil Engineers may consider exceptions to this general policy for work within their approval authority. (See also paragraph 3.4., but note that resource availability is never a justification for phasing a construction project.)

5.3.2. Additional Unspecified Minor Military Construction Projects in a Single Building.

5.3.2.1. Program additional unspecified minor military construction projects, without regard to funding source, in a single building for accomplishment within a planned 24-month period only if:

5.3.2.1.1. The requirement for an additional unspecified minor military construction project in a 24-month period could not have been reasonably anticipated at the time the previous unspecified minor military construction project was initiated; or

5.3.2.1.2. The requirement for an additional unspecified minor military construction project is for a distinctly different purpose or function from the previously initiated unspecified minor military construction project and each can be independently complete and usable.

5.3.2.2. This 24-month programming period begins upon contract award for contract projects, including SABER, or upon the start of construction for non-contract projects.

5.3.2.3. For multiple unspecified minor military construction projects, the appropriate authority must approve and sign the individual programming documents.

5.3.2.4. Large facilities exceeding 100,000 square feet (e.g., medical, academic, industrial, depot maintenance, laboratory, and testing) deserve special consideration. Clearly unrelated and non-contiguous construction requirements in such facilities which also have differing category codes should be programmed as separate projects. Prior written approval by HQ USAF/ILE must be obtained when the total, combined cost of such projects exceeds \$750,000. MAJCOM/CEs may approve multiple projects within their delegated approval authority.

5.3.3. Project Documentation. Project documents for multiple unspecified minor military construction projects in a building within a 24-month period, which exceed MAJCOM approval level, must be signed and dated by the MAJCOM/CEP before submitting to HQ USAF/ILER for processing to HQ

USAF/ILE or SAF/IEI. ANG/CE and AFRC/CE will work directly with SAF/IEI to obtain necessary approval and notification for O&M-funded projects.

Chapter 6

SPECIAL PROGRAMMING CONSIDERATIONS

6.1. Fund Sources. **NOTE:** This paragraph addresses the source of funds for O&M-funded work classified according to [Chapter 4](#) and [Chapter 5](#). Work classifications are defined by statute and are **not replaced**. O&M-funded projects are programmed, budgeted and funded in two ways: (1) as sustainment; and (2) as restoration and modernization (R&M).

6.1.1. Definitions:

6.1.1.1. **Sustainment.** Includes annual maintenance and scheduled repair activities to maintain the inventory of real property assets through its expected service life. Includes regularly scheduled adjustments and inspections, preventive maintenance tasks, and emergency response and service calls for minor repairs. Also includes major repairs or replacement of facility components (usually accomplished by contract) that are expected to occur periodically throughout the life cycle of facilities. This work includes regular roof replacement, refinishing of wall surfaces, repairing and replacement of heating and cooling systems, replacing tile and carpeting and similar types of work. Assign these projects to EEIC 521 (Sustainment Maintenance) or EEIC 524 (Sustainment Repair). All costs for this work should be charged to Program Element ***78F.

6.1.1.2. **Restoration and Modernization (R&M) Using O&M Funds:** Restoration includes repair and replacement work to restore facilities damaged by inadequate sustainment, excessive age, natural disaster, fire, accident or other causes. Modernization includes alteration of facilities solely to implement new or higher standards (including regulatory changes) to accommodate new functions, or to replace building components that typically last more than 50 years (such as foundations and structural members). Projects in this category will be classified as repair and/or minor construction. Assign these projects to EEIC 522 (Repair) or EEIC 529 (Minor Construction O&M). All costs for this work should be charged to PE ***76F. (There is also an R&M component of MILCON funding. i.e., R&M can also be funded from the MILCON appropriation (3300)).

6.1.1.3. **Examples:** Detailed examples of both categories of work are in [Attachment 3](#).

6.1.2. Programming for Different Categories: Sustainment and R&M work must be identified separately on the programming document even if the work will be accomplished in the same contract or at the same time, and even if the sustainment and R&M projects are dependent upon each other for the facility to be complete and useable.

6.1.3. EEIC Table. [Table 6.1](#) lists the EEICs assigned to - work classifications.

Table 6.1. Element of Expense Investment Code (EEIC) Table.

Work Classification	Description	EEIC	PE Fund Source
Maintenance	See Paragraphs 4.1.1. and 6.1.1.1.	521	PE ***78 Sustainment
Repair (Life Cycle)	See Paragraphs 4.1.2. and 6.1.1.1.	524	PE ***78 Sustainment
Repair (Non-life cycle)	See Paragraphs 4.1.2. and 6.1.1.2.	522	PE ***76 R&M
Minor Construction (Construction < \$750K)	See Paragraphs 5.1.2. and 6.1.1.2.	529	PE ***76 R&M

NOTE: First three digits (***) of the Program Element (PE) are MAJCOM and mission area specific.

6.2. Other Funding Considerations

6.2.1. **Bona Fide Need.** Bona fide need requires use of funds only for the purpose(s) for which they were appropriated and are only for payment of expenses properly incurred during the period of availability of funds. This particularly applies to SRM projects accomplished by contract. See AFI 65-601 Volume 1, *Budget Guidance and Procedures* for more guidance on bona fide need.

6.2.2. **Severability.** Maintenance, repair, or minor construction projects which can reasonably be separated into components (e.g., multiple facilities) are considered to be severable, if they can independently be performed to meet a separate need of the government. As such, they must be contracted so as to include the amount of work which can be performed in one year. Maintenance, repair, or minor construction contracts for a single facility may be considered as non-severable, and therefore may include a period of performance greater than one year.

6.2.3. **Environmental Compliance (EQ) Funding Eligibility.** Primarily, EQ funding is to be used for the cost of initial construction, modification, or upgrade of a facility, system or component(s) to comply with new environmental laws or regulations. Once constructed, maintenance and repair of these systems should be accomplished with non-environmental funds even if the need to perform maintenance or repair is cited by an environmental law, regulation, or permit.

6.2.4. **Funding of Replacement Real Property Installed Equipment (RPIE).** If RPIE is being replaced and would have been funded by MILCON when the facility was constructed, the repair or replacement of the item should be funded using O&M funds under 10 U.S.C. 2811. This is applicable whether the equipment is being replaced as part of a larger repair project or as a stand-alone replacement. If the equipment was initially funded with procurement funds (e.g., production or moveable equipment), then its replacement would be funded with procurement funds. See AFI 65-601, Volume I for more information.

6.3. Use of Troop Labor. As a matter of policy, the MAJCOM Civil Engineer must approve minor construction or repair projects in the United States, including Guam, Puerto Rico, and the Virgin Islands, planned for accomplishment with RED HORSE or Prime BEEF, if total funded and unfunded costs exceed \$750,000. Further approvals may be required per the approval levels designated in [Chapter 1](#) of this AFI. Retain documentation for such projects totaling over \$100,000 at the installation. This policy

does not apply to facilities whose construction fund source is nonappropriated funds. Reference AFI 32-1021, *Planning and Programming Military Construction Projects* and AFI 65-601, Volume 1, *Budget Guidance and Procedures* for more information on funded project costs. (For ANG, SAF/IEI approval is required.)

6.4. Augmenting In-House Work Force. Also as a matter of policy, the MAJCOM Civil Engineer must approve repair projects over \$750,000 planned for accomplishment by augmenting the in-house work-force with civilian overhires or temporary duty personnel. Further approvals may be required per the approval levels designated in **Chapter 1** of this AFI. Furthermore, to use civilian overhires or temporary duty augmentees in the U.S., the Installation Commander must certify at least one of the following conditions exists: (1) use of troop labor or overhires is required as a consequence of a labor strike which precludes work being done on schedule and delay will seriously impede the Air Force mission; (2) there are no responsive bids to an Air Force invitation for bids; (3) security clearance requirements prevent contractor accomplishment; (4) there is an overriding urgency for completion of the project by a specified date, not allowing time to prepare detailed plans and specifications; or (5) the safety and health of workers or the public is jeopardized.

6.4.1. Projects with scopes of work limited to demolition and asbestos and lead based paint abatement may be accomplished by organic, temporary duty, overhire, or contract labor, so long as the choice is made to achieve best value for the Air Force while continuing to recognize the imperatives of mission accomplishment, and adherence to the principles and provisions of Office of Management and Budget Circular A-76. This limited authority will not be used in conjunction with repair projects and must be supported by an economic analysis that compares contract accomplishment to other options considered.

6.5. Host-Tenant Relationships and Responsibilities. General responsibilities are outlined in AFI 25-201, *Support Agreement Procedures*, and AFI 65-601, Volume 1, *Budget Guidance and Procedures*.

6.5.1. **Host Base Planning Responsibility.** Tenants will provide appropriate input to hosts in the preparation, implementation, and maintenance of the Base Comprehensive Plan (BCP). The host will work with tenants to integrate tenant plans into the BCP. Establish support for programming and accomplishing tenant required work per AFI 32-7062, *Base Comprehensive Planning*.

6.5.2. **Tenant Programming Responsibility.** A tenant is responsible for providing the host with the tenant's requirements and justification data to support construction and repair projects.

6.5.3. **O&M Funding Responsibility:**

6.5.3.1. Air Force Tenants (Intraservice). An Air Force host is responsible, in Air Force buildings, for funding minor construction costing up to \$2,000 (if over \$2,000, the tenant is responsible) and all work classified as maintenance or repair. Consistent with the Fund Sources described in Paragraph 6.1. above, this means that the host funding responsibility includes all Sustainment work, Repair work that falls under Restoration and Modernization, and all minor construction less than \$2,000. Nothing precludes a tenant from funding facility support it deems necessary. Whoever funds the project approves it, but the tenant must follow appropriate procedures for coordinating new facilities and modifications to existing facilities with the host. The Air Force host always prepares the programming document. The tenant's real property permit and Interservice Support Agreement may provide for reimbursement for support provided by the host or other require-

ments. (See AFI 65-601, Volume I, *Budget Guidance and Procedures*, for additional guidance on host-tenant funding responsibilities.)

6.5.3.2. Contractor, Interservice, Interdepartmental, and Interagency Tenants. The real property permit, license, lease, or other outgrant to the tenant, and the Interservice Support Agreement with the tenant, provide guidance for determining when a tenant will provide reimbursement for support provided by the host.

6.5.3.3. The tenant is responsible for funding those repair projects which are unique to the operation of the tenant, such as rearrangement of interior partitions to improve operations or force protection measures necessitated by the nature of the tenant's operation.

6.5.3.4. ANG. The ANG is responsible for all costs of exclusive use facilities, including those used by ANG units that are tenants on military installations. When the ANG is a tenant, the host is responsible for all O&M costs of jointly used areas which are not licensed to the ANG. O&M costs for unlicensed facilities used by ANG personnel performing an active duty mission shall be provided by the MAJCOM responsible for the mission.

6.6. Air National Guard Facilities Considerations:

6.6.1. **Program Submission.** The BCE will update and submit the sustainment, restoration and modernization (SRM) program to ANG/CEP each year as requested. A current DD Form 1391 is required for each project included in the submission, which requires ANG approval. Submit a new DD Form 1391 each year. A current DD Form 1391 is necessary to ensure the scope, requirements, and costs are updated and revalidated. In addition, include an updated certificate of compliance and a SRM checklist for each project.

6.6.2. **ANG Facilities on Other Component Installations.** The ANG is responsible for authorizing and funding all repair projects for licensed, exclusive use ANG facilities per AFI 32-1012, *Reserve Components Facilities Programs*. The host installation engineer must review all ANG-funded construction and repair projects for potential conflict with other installation work.

6.6.3. ANG Cooperative Agreements:

6.6.3.1. **ANG SRM(O&M).** ANG SRM (O&M) projects outside Air Force owned or leased property require an agreement between the ANG and local authority. This is done via a Military Construction Cooperative Agreement (MCCA).

6.6.3.2. **Military Construction Cooperative Agreements (MCCA).** The MCCA program is comprised of requirements for the terms, conditions, and cost sharing ratios for the ANG share of improvements on non-federal land. Refer to NGR 5-1/ANGI 63-101, *Grant and Cooperative Agreements*, Chap 40.

6.6.4. **Design and Execution of SRM (O&M) Projects.** Refer to ANGI 32-1023, *Criteria and Standards for Air National Guard Construction*.

6.7. Energy Conservation. Consider energy efficiency to the maximum extent possible in all construction and repair projects. ASHRAE 90.1-1999 with ASHRAE/IESNA approved addendums will be the interim guidance used on these projects until the energy criteria is incorporated into the Unified Facilities Criteria (UFC) documents. To help meet the mandated energy goals, several funding avenues are available to the designers/programmers. Utility Energy Services Contract (UESC) and ESPC should be inves-

tigated as potential sources to provide funds to retrofit or repair the Air Force facility infrastructure out of energy savings produced. Certificates of compliance are required from the designers (as part of final design) and construction agents (at acceptance) verifying that energy efficient equipment and systems are included. Forward these certificates through HQ AFCESA/CES (for technical review) and the MAJCOM/CEs to HQ USAF/ILEC. ANG will submit to ANGRC/CEC for processing.

6.8. POL Systems. Defense Energy Support Center (DESC) is responsible for approving and funding all projects on Air Force installations (including ANG installations) for the aircraft fuel systems and related appurtenances which process DESC owned fuels. Prepare project submittals in accordance with DESC guidance through the MAJCOM.

6.9. Working Capital Fund (WCF). WCF activities are responsible for costs associated with **SRM(O&M)** projects in accordance with DoD Regulation 7000.14R, *DoD Financial Management Regulation*, Vol. 11B, Chapter 62, Section F. WCF activities use WCF funds to reimburse host installations for such work. When a WCF activity partially occupies a building, WCF will, as established above, fund costs in support of the space occupied by the WCF activity. WCF projects are subject to the same statutory limitations as O&M-funded projects.

6.10. Accessibility. The scope of each construction and repair project will be carefully reviewed with respect to applicable accessibility standards. Refer to the *Uniform Federal Accessibility Standards* and the *Americans with Disabilities Act Accessibility Guidelines* for additional information.

6.11. Sustainability. Incorporate sustainable design principles consistent with current Air Force sustainable development policy to the maximum extent possible, consistent with budget and mission constraints.

Chapter 7

FACILITIES FOR OPERATIONAL REQUIREMENTS

7.1. Authority and Limitations. During wartime, occasional needs arise for facilities, required temporarily, that do not fit within other authorities discussed in this Instruction. This chapter addresses those types of requirements. Use of authority provided by this chapter must be exercised with the greatest care and discretion.

7.1.1. The fund source for facilities provided under this chapter will be O&M.

7.1.2. This chapter only applies to a contingency operation as defined in 10 U.S.C. § 101(a)(13)(A) occurring outside the United States.

7.1.3. This chapter only applies to that geographical area for which the combatant command conducting the contingency operation is responsible and then only in the area where actual operations are being conducted. It does not apply to a rear echelon even if that echelon provides support to the front-line troops.

7.1.4. This chapter does not apply to any facility requirements costing less than \$750,000. Such requirements will be provided under other available authority, such as 10 U.S.C. § 2805, *Unspecified minor construction*.

7.1.5. This chapter only applies to an operational requirement the need for which is not expected to exceed two years.

7.1.6. Without regard to standard Air Force or Department of Defense facility construction standards, any facility provided under the authority of this chapter will be designed and built as temporary construction. (The exception to this requirement is when the host nation requires a higher standard to obtain its approval or where the temporary standard and the permanent standard are essentially identical. The DD Form 1391 should explain the exception when one exists.) The applied construction standard will recognize that the facility is only being provided to meet a temporary need and will be abandoned at the termination of operational requirements. No facilities provided under the authority of this chapter will be built with the expectation that they will eventually be turned over to other organizations and used by them beyond the original Air Force requirement. All such facilities will meet appropriate safety standards applicable in a combat area, but will not necessarily be expected to meet the safety standards that would apply to permanent construction.

7.1.7. This chapter does not apply to construction to be carried out at a military installation, as defined under 10 U.S.C. § 2801(c)(2), or at a location where the U.S. is reasonably expected to have a long-term interest or presence. In the context of this chapter, a military installation is defined as a location where the Air Force has operational control by virtue of a written basing agreement.

7.1.8. No facility supporting MWR activities will be provided under the authority of this chapter.

7.2. Characteristics of Projects.

7.2.1. Projects to which the authority of this chapter may be applied include erection of facilities, acquisition of temporary interests in land and design.

7.2.2. The need for such projects must be so pressing that use of other authorities would not allow the requirement to be met.

7.2.3. The requirement for such projects should be in immediate and direct support of combat operations or force protection for those engaged in combat operations. This authority is particularly applicable in countries, friendly or not, where the United States does not currently have a significant permanent military presence.

7.2.4. Such projects may combine work typically considered as construction with work considered as services.

7.2.5. Such projects may include repair of pre-existing facilities.

7.2.6. Use relocatable or semi-permanent construction to the maximum extent possible. The types of structures normally used should be trailer, modular, K-span, stress-tension, or pre-engineered buildings. More permanent construction materials should normally not be used, unless specifically required for security, force protection, or other mission operations. Any departure from the use of semi-permanent construction must be well-documented and justified on the DD Form 1391. Program projects with all costs being funded for the structure, transportation, erection, site preparation, and related costs.

7.3. Project Documentation. Facilities that are part of a single undertaking (i.e., are accomplished at the same time, for the same general need, and are required for the same period of time) can be listed on a single DD 1391 provided that each facility requirement to be approved under this authority is identified separately with its associated justification, purpose, and cost. It is important to identify each facility requirement in accordance with Paragraph 3.4., as part of the same undertaking so a cost for each facility requirement can readily be identified. General costs such as site preparation should be spread over the associated facilities with which it is associated. Facilities that are satisfying separate facility requirements (e.g., lodging, administrative, base operations, aircraft maintenance, utilities) but satisfy a general purpose such as a beddown should be submitted and approved as part of the same undertaking. If facilities are meeting different contingencies, are not being accomplished at the same time, or are required for differing periods of time, they should be programmed on different 1391s.

7.4. Approval Limitations.

7.4.1. **Without regard to dollar value, project approval authority is delegated to the Deputy Assistant Secretary of the Air Force (Installations). Submit project requests to AF/ILER who will coordinate projects with SAF/GCN before sending to SAF/IEI. Upon project approval by SAF/IEI, SAF/FMB will seek approval of the proposal with the Undersecretary of Defense (Comptroller) (USD(C)) before proposed work may proceed.**

7.4.2. SAF/IEI will make appropriate notification to Congress no less often than once a quarter.

7.4.3. As a matter of policy, a project approved under this chapter may not exceed 125% of the approved cost without reapproval.

7.5. Documentation. All projects constructed under this authority must be documented on a standard DD Form 1391 project document and signed by the appropriate approving official including the approval date. The document must be dated and clearly identify the military operation the work supports, and define the period of time the facility will be required, based on known planning factors. The document must explain the urgency and how the temporary construction will satisfy the mission requirements. The document can be classified, or not, depending on the operational details and dates written in the text, and

current classification guidance for the military contingency. Personnel will mark classified documents in accordance with AFI 31-401, *Information Security Program Management*. Classification of a project's information neither excuses nor waives compliance with the requirements of this chapter.

7.6. Certification. When the project is located in a friendly nation, the Air Force component commander must certify the host nation has approved construction of the U.S. facility and the site, prior to any work being done (**Figure 7.1.**). Include the signed certification in the approval documentation, using a DD Form 1391c. Adhere to the provisions of any applicable international agreements to ensure compatibility with applicable host nation construction criteria.

7.7. Related Authority. The authority provided in this chapter is separate from the provisions of short-term facilities defined in AFI 32-1021, and is not related.

7.8. Forms Adopted: AF Form 332, **Base Civil Engineer Work Request**; AF Form 327, **Civil Engineering Work Order**; DD Form 1391, **FY ____ Military Construction Project Data**; DD Form 1391c, **FY ____ Military Construction Project Data (continuation)**.

Figure 7.1. Certificate of Authorization for Construction.

1. COMPONENT AF (MAJCOM)	FY _____ MILITARY CONSTRUCTION PROJECT DATA (Continuation)	2. DATE (YYYYMMDD)	REPORT CONTROL SYMBOL DD-A&T(A)1610
3. INSTALLATION AND LOCATION Location and Country		4. PROJECT TITLE	
5 PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST (\$000)

CERTIFICATION OF AUTHORIZATION
FOR
FACILITY PROJECTS

UNDERTAKEN WITH O&M FUNDS

I have reviewed the DD Form 1391 for this project and certify that the document is accurate. I certify the host nation has approved construction of the U.S. facility and the site, prior to any work being done. I certify that the project is required and in compliance with AFI 32-9001, *Acquisition of Real Property* and AFI 51-701, *Negotiating, Concluding, Reporting, and Maintaining International Agreements*. I am acting based on properly delegated USAF project approval authority.

APPROVED BY: _____ DATE: _____

Name, Rank, Signature
(AF Commander)

SAMPLE

L. DEAN FOX, Maj Gen, USAF
The Civil Engineer, DCS/Installations & Logistics

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

10 U.S.C. §101\10 U.S.C. §2012

10 U.S.C. §2805\10 U.S.C. §2811

10 U.S.C. §2854\10 U.S.C. §18233

10 U.S.C. §18233a

28 C.F.R. Part 36, Appendix A, *Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities*

41 C.F.R. Chapter 101, *Uniform Federal Accessibility Standards* DoDD 1100.20, *Support and Services for Eligible Organizations and Activities Outside the Department of Defense*

DoDD 2000.12, *DoD Anti-terrorism/ Force Protection (AT/FP) Program*

DoDD 5200.8, *Security of DoD Installations and Resources*

DoDDI 2000.16, *DoD Antiterrorism Standards*

DoD 7000.14R, *DoD Financial Management Regulation*

AFPD 32-10, *Installations and Facilities*

AFI 25-201, *Support Agreements Procedures*

AFI 31-401, *Information Security Program Management*

AFI 32-1001, *Operations Management*

AFI 32-1012, *Reserve Components Facilities Programs*

AFI 32-1021, *Planning and Programming Military Construction (MILCON) Projects*

AFI 32-1022, *Planning and Programming Nonappropriated Fund Facility Construction Projects*

AFI 32-6002, *Family Housing Planning, Programming, Design and Construction*

AFI 32-7001, *Environmental Budgeting*

AFI 32-7062, *Air Force Comprehensive Planning*

AFI 32-9001, *Acquisition of Real Property*

AFI 32-9004, *Disposal of Real Property*

AFI 32-9007, *Managing Air Force Real Property*

AFI 51-701, *Negotiating, Concluding, Reporting, and Maintaining International Agreements*

AFI 65-601, Volume 1, *Budget Guidance and Procedures*

AFMAN 37-139, *Records Disposition Schedule*

AFH 32-1084, *Facility Requirements*

ETL 02-12, *Communications and Information System Criteria for Air Force Facilities*

NGR 5-1/ANGI 63-101, National Guard Grants and Cooperative Agreements

SAFO 714.1, *Facilities and Unit Stationing for the Air National Guard and Air Force Reserve Forces*

SAFO 715.2, *Facility-Related Authorities*

UFC 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*

ANGI 32-1023, *Criteria and Standards for Air National Guard Construction*

Abbreviations and Acronyms

AF—Air Force

AFI—Air Force Instruction

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

ANG—Air National Guard

BCE—Base Civil Engineer

BCP—Base Comprehensive Plan

DESC—Defense Energy Support Center

DoD—Department of Defense

EEIC—Element of Expense Investment Code

FOMA—Facilities Operation and Maintenance

MAJCOM—Major Command

MCA—Military Construction Appropriations

MILCON—Military Construction

NTE—Not to Exceed

O&M—Operation & Maintenance

OH&P—Overhead and Profit

OSD—Office of the Secretary of Defense

RD&E—Research, Development, Test, and Evaluation

RPIE—Real Property Installed Equipment

SIOH—Supervision, Inspection and Overhead

SRM—Sustainment, Restoration and Modernization

USPFO—United States Property and Fiscal Officer

WCF—Working Capital Fund

Attachment 2**PREPARING DD FORMS 1391**

A2.1. Preparing DD Forms 1391 and 1391c, FY ____ *Military Construction Project Data.* Use the following directions to prepare DD Forms 1391 for all projects funded from funds available for operation and maintenance. Since the DD Form 1391 is the basis on which individual projects and some Air Force-wide programs are justified and approved, they must be carefully prepared to provide complete, accurate, and essential information. The project documents must provide a complete word picture of the work planned and the reason for the work. For phased work, a clear description of the ultimate goal of the phased program should be included. The appropriate authority must approve project documents on the front sheet DD Form 1391 or DD Form 1391c for each facility project. Project documents for operation and maintenance-funded projects should follow the same format as those for MILCON projects to the maximum extent possible.

A2.2. Item 1, Component. Enter "AF" followed by the MAJCOM (or "ANG" or "AFRC") requesting the project.

A2.3. Title Block. Enter the fiscal year of the funds paying for the project.

A2.4. Item 2, Date. Enter date of current project document. Every DD Form 1391 must have the date of the current document.

A2.5. Item 3, Installation and Location. Put the name of the installation and the state or country where located. Also, enter the name of the installation where work will be done if it is an off-base site.

A2.6. Item 4, Project Title. First word will be "Maintain", "Repair", "Construct", or "Add.". Make it clear what the work is to do. If more than one class of work, say so. Be sure to use the name of the facility in the title, not just the facility number.

A2.7. Item 5, Program Element Number. Indicate the five-digit number INCLUDING SUFFIX ("F" if Air Force) corresponding to the source of funds to be spent and the corresponding EEIC.

A2.8. Item 6, Category Code. Show the six-digit code for the facility or component involved.

A2.9. Item 7, Project Number (Active Forces). This number is locally assigned and should be consistent with the Automated Civil Engineer System-Project Management module. Enter the types of funds to be used for the work, such as O&M, RDT&E, Medical O&M, Defense SRM (O&M), etc.

A2.10. Item 8, Project Cost. Show element of expense investment code and total funded project cost, for example EEIC 529 - \$000K. Round project cost to the nearest thousand. Maintenance/Repair and Minor Construction projects **should be identified separately**. Project documentation should clearly specify project cost for each EEIC being used to fund the proposed work.

A2.11. Item 9, Cost Estimates. This section provides for a breakout of costs by identifiable elements of work such as electrical, mechanical, etc. Use these or other useful measures to provide a summary of the

project cost. This area also provides the opportunity to show elements that are part of the costs of the overall effort but which are funded from other sources such as equipment. Refer to AFI 65-601, Volume 1, *Budget Guidance and Procedures* and AFI 32-1021 for a detailed breakout of funded versus unfunded costs. Show Overhead and Profit (OH&P) expenses here as funded costs (when appropriate), however, do not show a line item with a zero cost. Use local experience for amount. Show Supervision, Inspection, and Overhead (SIOH) when applicable. Ensure there are no mathematic errors in the cost estimate. Design costs, when paid from operation and maintenance funds, are unfunded. Use current inflation indices to bring appropriate project costs into the year of expected execution (especially for phased work). If the programmed amount is close to a statutory threshold, include an explanation in the requirement of what measures you will take to ensure the statutory limitation is not exceeded. Provide a separate cost estimate for companion maintenance, repair, and minor construction projects. Include demolition costs if appropriate and applicable.

A2.11.1. **Foreign Currency Exchange Rate.** Enter the rate used, when applicable.

A2.11.2. **Contingency Costs.** Identify contingencies as a percent of total, when appropriate.

A2.12. Item 10, Description of Proposed Work. Cross out the word "Construction" in the item 10 heading and replace with the word "WORK." Describe the major work planned by work classification. When an unspecified minor military construction project is companion to a repair project, ensure each project references the other related project. Unspecified minor military construction should be on a separate project number; however, ensure that each project's programming document(s) reference other related projects. For phased work, describe the work included in each phase. Be succinct, but descriptive.

A2.13. Item 11, Requirement. Tell why the project is being done, including the ultimate goal for a phased project. Be specific to define the requirement. Ensure the description of the requirement coincides with the classification of work. Avoid use of verbs or other language which would indicate another work classification. For example, "install" and "upgrade" may give the idea that work is new (e.g., construction) whereas "replace" would likely indicate repair class work. The requirement will include age of the facility or associated components; general conditions of the items requiring work; energy conservation or environmental considerations; current impact to installation mission; etc.; which help describe the current situation. Succinctly state the current situation and realistically state the impact if the work is not provided. Include any information which helps form a word picture of why this project is being done. Clearly identify, by project number and title, any companion projects associated with this work. (Companion projects are those being accomplished simultaneously but with a different work class.) If rented or leased facilities are involved, provide the following information:

A2.13.1. **Location.** City, State (or Country), and street address.

A2.13.2. **Occupied By.** Official name of agency using facility.

A2.13.3. **Lease Number.** Official lease number under which facility is being used.

A2.13.4. **Annual Rental.** Annual rent paid for use of the property.

A2.14. Supporting Documentation (Not applicable to ANG) Do not hesitate to use DD Forms 1391c in your programming documentation. When submitting projects to the MAJCOM and HQ USAF, submit the following:

A2.14.1. Provide current copies of DD Form(s) 1391.

A2.14.2. In addition to the other requirements of Paragraph [A2.14.](#), for repair projects.

A2.14.2.1. Provide current copies of DD Form(s) 1391 for any companion construction projects

A2.14.2.2. Clearly show that no minor construction is involved in the repair work

A2.14.2.3. State the replacement cost of the facility as compared to the proposed repair cost (See Paragraph [5.1.2.3.2.](#))

A2.14.3. **Single Line Drawing.** Provide a drawing of the facility to show its general layout and all areas of work in the project. "Before" and "after" site or floor plans are required for repair projects.

A2.14.4. **Site Plan.** This plan will show only immediate areas involved in the project.

A2.14.5. **Certificates.**

A2.14.5.1. Provide appropriate certification if required by Paragraph [3.5.5.](#) of this AFI.

A2.14.5.2. See **AFI 32-1021** for possible additional certificate requirements.

A2.14.6. **Cost Estimate DD Form 1391c.** Provide a cost estimate in enough detail to complete a word picture of the proposed work. Include a separate entry for SIOH (when applicable) and OH&P. Ensure all cost estimates are up-to-date and that proper inflation is used for phased work.

A2.14.7. **Unique Requirements for Airfield Pavements:**

A2.14.7.1. Furnish a single line drawing to clearly show the pavement configuration of the runways, taxiways, aprons, and other airfield pavements and the project location. Include a drawing providing a detailed before and after pavement cross section.

A2.14.7.2. Projects submitted for approval to the MAJCOM must include a current Pavement Condition Index. Include the pavement questionnaire and photographs describing the project. A current pavement evaluation report is also good justification for project funding. Provide a copy of the project documents concurrently to HQ AFCESA/CES for review and concurrence in the technical aspects of the project.

Attachment 3

EXAMPLES OF SUSTAINMENT, RESTORATION AND MODERNIZATION

A3.1. Applicability. This attachment is solely for the purpose of illustrating Sustainment, Restoration and Modernization funding categories and is not to be confused with work classifications. For work classification examples, refer to [Chapter 4](#) and [Chapter 5](#) of this instruction.

A3.2. Sustainment: This category of work provides resources for annual maintenance and scheduled repair activities to maintain the inventory of real property assets through its expected service life. It includes regularly scheduled adjustments and inspections, preventive maintenance tasks, and emergency response and service calls for minor repairs. It also includes major repairs or replacement of facility components (usually accomplished by contract) that are expected to occur periodically throughout the facility life cycle. This work includes regular roof replacement, refinishing of wall surfaces, repairing and replacement of heating and cooling systems, replacing tile and carpeting, and similar types of work. Not included is the repair or replacement of non-attached equipment or furniture, or building components that typically last more than 50 years (such as foundations and structural members). Sustainment does not include requirements funded elsewhere, such as restoration, modernization, environmental compliance, historical preservation or costs related to unexpected events.

A3.2.1. Examples of sustainment projects include, but are not limited to:

A3.2.1.1. Repairing a roof on a cyclic basis (built up roof, standing seam metal roof, etc)

A3.2.1.2. Replacing telephone poles periodically

A3.2.1.3. Rebalancing an HVAC system

A3.2.1.4. Inspecting/repairing fire detection/suppression systems

A3.2.1.5. Repainting the exterior or interior of facilities

A3.2.1.6. Performing spall repair or crack sealing on the airfield

A3.2.1.7. Cleaning out storm drainage systems on a periodic basis

A3.2.1.8. Repairing a water line break (emergency response)

A3.2.1.9. Replacing the floor covering in a facility

A3.2.1.10. Chip sealing a road surface

A3.2.1.11. Restriping base parking lots

A3.2.1.12. Replacing wastewater treatment process components on a cyclical basis as required to satisfy the installation wastewater permit

A3.2.2. Sustainment Credit. Consistent with paragraph [6.5.3.1](#) of this AFI, Air Force hosts are normally responsible for funding construction costing up to \$2,000 and all work classified as maintenance or repair. This responsibility clearly crosses funding sources described in paragraph [6.1](#) of this AFI. The Department of Defense (DoD) Facilities Sustainment Model normally credits sustainment requirement for facilities to the MAJCOM or agency that “owns” a facility on its real property records. Exceptions to this general rule need to be addressed through the MAJCOM and worked out between relevant MAJCOMs before requesting a change to Air Staff coordination with DoD.

A3.3. Restoration and Modernization (R&M): *Restoration* includes repair and replacement work to restore facilities damaged by inadequate sustainment, excessive age, natural disaster (storm damage), fire, accident, or other causes. *Modernization* includes alteration of facilities solely to implement new or higher standards (including regulatory changes), to accommodate new functions, or to replace building components that typically last more than 50 years (such as foundations and structural members). R&M also includes mission beddowns.

A3.3.1. Examples of Restoration and Modernization projects include, but are not limited to:

A3.3.1.1. Repairing facility damage caused by a leaking roof (i.e. collapsed ceiling, drywall, floor, etc, resulting from lack of sustainment). May include the roof itself.

A3.3.1.2. Repairing damage to a facility caused by a natural disaster (fire, tornado, hurricane, flood, earthquake, etc)

A3.3.1.3. Replacing a section of water line that has exceeded life expectancy or does not perform as designed

A3.3.1.4. Replacing a runway or taxiway (concrete, base course, drainage system, etc) that hasn't been replaced in 50 years

A3.3.1.5. Repairing a facility (to include structural members) as a result of an explosion

A3.3.1.6. Complete replacement of an existing road due to failure

A3.3.1.7. Replacing a HVAC system that was poorly designed and never worked properly

A3.3.1.8. Replacing the existing lighting with more energy efficient system

A3.3.1.9. Converting a former commissary into an orchestra performance hall

A3.3.1.10. Renovating a facility to accommodate new modular furniture

A3.3.1.11. Altering a facility (new walls, ceiling, floor covering, etc) to house a new function (administrative, shop, etc)

A3.3.1.12. Altering a facility (new walls, ceiling, floor covering, etc) to bed-down a new mission

A3.3.1.13. Replacing the roof trusses or floor joists of a facility after 50 years

A3.3.1.14. Installing a new fire suppression system to comply with a new fire code

A3.3.1.15. Constructing a new road within O&M funding limits

Attachment 4

FACILITY INVESTMENT METRIC

A4.1. Purpose.

A4.1.1. The purpose of the Facility Investment Metric (FIM) is to put a mission face on existing facility and infrastructure restoration and modernization requirements in order to advocate for funds at the Air Force Corporate Structure. It also provides the Air Force leadership with a tool to identify the Air Force's most urgent facility needs.

A4.1.2. The FIM provides credible information to assist senior leaders in making key resource decisions in the facility and infrastructure business. The FIM improves the Air Staff's ability to advocate and defend repair and minor construction funds within the Air Force Corporate Structure by clearly identifying the most urgent facility requirements and their impact on the Air Force mission. FIM requirements are one of the factors used to develop the Installation Readiness Report (IRR) for the Air Force. The IRR is provided to Congress annually and identifies the readiness of installations and facilities. Since the Air Force will use the FIM, as well as the IRR, as a means of advocacy, we must ensure that funds are expended in the same manner as they were earned. Bottom Line: The Air Staff will use the FIM in conjunction with the IRR, to advocate for the level of Operation and Maintenance (O&M) funding necessary to address the most urgent facility needs of the Air Force.

A4.1.3. The FIM collects facility project requirements and stratifies them by facility class and installation/tenant mission impact. The eleven facility classes are the IRR facility classes (Operations and Training; Mobility; Maintenance and Production; Research, Development, Testing and Evaluation (RDT&E); Supply; Medical; Administrative; Community Support; Military Family Housing (MFH); Dormitories; and Utilities and Ground Improvements) and are determined by the category code associated with the facility. Each project is also categorized as Critical, Degraded, or Essential, depending on the project's impact on the installation's/tenant's mission. The FIM data is collected annually from the Automated Civil Engineer System - Project Management (ACES-PM) Database after the end of the fiscal year.

A4.1.4. FIM involves only Restoration and Modernization (R&M) O&M funded, non-sustainment projects. FIM does not include design funds, studies, and projects funded from other accounts (i.e., Military Family Housing (MFH), Environmental, Defense Commissary Agency (DeCA), Defense Energy Supply Center (DESC), Research, Development, Testing & Evaluation (RDT&E), Medical, Non-Appropriated Funds (NAF), Military Construction (MILCON), Transportation Working Capital-Fund (TWC-F), etc.).

A4.2. Concepts.

A4.2.1. **Facility Classes.** Facility classes are groupings of like facilities, summarizing more than 1,500 facility categories currently used for real property record keeping. These facility classes are similar to the groupings traditionally used for military construction budgets. DoD requires formal reporting for only nine IRR facility classes. However, because of high interest in the specific areas of family housing and dormitories, the Air Force also breaks out DoD's "Community and Housing" facility class into three sub classes; Military Family Housing, Dormitories, and Community Support. The facility classes are:

A4.2.1.1. Operations and Training. Includes facilities and infrastructure such as, and in direct support of, airfields, training ranges, class rooms, aircraft parking, refueling hydrants, and flight simulators, used for operations and training.

A4.2.1.2. Mobility. Includes facilities and infrastructure directly supporting mobilization of forces, including staging areas and transportation systems.

A4.2.1.3. Maintenance and Production. Includes facilities and infrastructure directly supporting vehicle and avionics maintenance; facilities such as tactical equipment shops and aircraft maintenance hangars.

A4.2.1.4. RDT&E. Includes facilities and infrastructure directly supporting RDT&E. Facilities with this classification include test chambers, laboratories, and research buildings.

A4.2.1.5. Supply. Includes facilities and infrastructure directly supporting supply activities; facilities such as warehouses, hazardous material storage facilities, and ammunition storage facilities.

A4.2.1.6. Medical. Includes facilities and infrastructure directly supporting medical facilities such as hospitals, and medical and dental clinics.

A4.2.1.7. Administrative. Includes general administrative office space, computer facilities, and the like.

A4.2.1.8. Community and Housing. Due to high interest in the specific areas of family housing and dormitories, the Air Force breaks out the “Community and Housing” facility class into three sub components:

A4.2.1.8.1. Community Support. Includes facilities and infrastructure directly supporting community activities. This facility class includes facilities such as dining halls, physical fitness centers, and child development centers.

A4.2.1.8.2. MFH. Includes facilities and infrastructure directly supporting the housing of military families.

A4.2.1.8.3. Dormitories. Includes facilities and infrastructure directly supporting the housing of single airmen.

A4.2.1.9. Utilities and Ground Improvements. Includes facilities and infrastructure supporting utilities production and distribution; includes electrical power production and distribution facilities and systems, water and wastewater facilities and systems, roads and bridges, and fuel storage tanks.

A4.2.2. **FIM Requirements Matrix.** The FIM Requirements Matrix ([Figure A4.1.](#)) groups all restoration and modernization projects according to facility class and impact on the installation/tenant’s mission. This two-dimensional layout helps decision-makers characterize the types and significance of an installation’s, MAJCOM’s, or the entire Air Force’s requirements. Requirements matrices help identify the mission impact of R&M requirements.

Figure A4.1. FIM Requirements Matrix.

	IMPACT RATINGS		
Facility Class	Critical	Degraded	Essential
Operations and Training			
Mobility			
Maintenance and Production			
RDT&E			
Supply			
Medical			
Administrative			
Community Support			
MFH			
Dormitories			
Utilities and Ground Improvements			

A4.2.3. Multi-Facility Projects. Multi-facility projects must not cross category codes. For projects which combine several facilities, the installation must ensure that all facilities in the project have the same category code. For example, a single project to repair fire suppression systems may not combine a dormitory (category code 721312) with a hangar (category code 211116). This will ensure all facilities in the project are in the same FIM facility class and will also allow project costs to be captured in the correct Installation Readiness Report (IRR) facility class.

A4.2.4. Multi-Facility Class Facility Projects. Projects in a single facility with multiple category codes that cross facility classes will carry the facility class that most correctly reflects the overall intent and scope of the work. For example, an electrical upgrade of a 10,000 SF warehouse that includes a 2,000 SF command post may reflect the Command Post's facility class if the majority of the cost is attributed to the command post; however, if the majority of the cost is attributed to the warehouse, the project should reflect the facility class for the warehouse.

A4.2.5. Impact Ratings. Impact ratings identify the requirement's current effect on the overall installation/tenant mission. The installation commander approves Impact Ratings using criteria defined below. Impact Ratings must reflect the intent and scope of the work to satisfy the current installation mission impact.

A4.2.5.1. Critical: Critical impact ratings are assigned to those projects which fulfill one of the following requirements:

A4.2.5.1.1. Significant loss of installation/tenant mission capability and frequent mission interruptions.

A4.2.5.1.2. Work-arounds to prevent significant installation/tenant mission disruption and degradation are continuously required.

A4.2.5.1.3. Risk Assessment Code (RAC) 1.

A4.2.5.1.4. Fire Safety Deficiency Code (FSDC) 1.

A4.2.5.2. *Degraded*: Degraded impact ratings are assigned to those projects which fulfill one of the following requirements:

A4.2.5.2.1. Limited loss of installation/tenant mission capability.

A4.2.5.2.2. Work-arounds to prevent limited installation/tenant mission disruption and degradation are often required.

A4.2.5.2.3. RAC II or III.

A4.2.5.2.4. FSDC II or III.

A4.2.5.3. *Essential*: Essential impact ratings are assigned to those projects which fulfill one of the following requirements:

A4.2.5.3.1. Marginal or little adverse impact to installation/tenant mission capability.

A4.2.5.3.2. Some work-arounds may be required.

A4.2.5.3.3. To prevent obsolescence.

A4.2.5.3.4. Any requirement which does not meet the Critical or Degraded criteria.

A4.2.5.3.5. Included in this rating category are requirements that would (1) improve the quality of life in work and living centers, (2) improve productivity and (3) lead to reduced operating costs (i.e., some facility consolidation and energy conservation initiatives).

A4.2.5.4. The facility class of a facility does not dictate the impact rating that it can receive and will not preclude a facility from receiving a Critical, Degraded or Essential impact rating. Any facility can be assigned a Critical impact rating if it meets the above criteria.)

A4.2.6. Rating Multiple Requirements in a Single Project. A project that combines multiple requirements, each with the potential to have a different Impact Rating, will reflect the least severe Impact Rating for the entire project. For example, an Essential impact requirement to replace lighting throughout a facility, combined with an isolated, Mission Critical HVAC upgrade requirement in a clean room of the same facility, must be rated as Essential if accomplished as one project.

A4.3. HQ USAF/ILE Actions.

A4.3.1. Establish policy and procedures for FIM as well as provide oversight.

A4.3.2. Issue FIM Call. HQ USAF/ILE will initiate each FIM cycle with implementation guidance to the MAJCOMs to meet the timelines established in paragraph **A4.6.** of this attachment. MAJCOMs may supplement this Guide and HQ USAF/ILE Instructions as appropriate. The FIM Call will identify the date that all MAJCOM-validated data must be released to HQ USAF/ILE. This date should be about the same time each year to ensure statistical consistency.

A4.3.3. Consolidate MAJCOM Data and Prepare FIM Requirements Matrix: Convene FIM Integrated Process Team to review and validate MAJCOM data. After data is validated, accomplish necessary analysis and produce the FIM Requirements Matrix.

A4.3.4. Provide Feedback . HQ USAF/ILE will provide feedback on the FIM program to the MAJCOMs and Air Force Corporate Structure. This includes, publishing a listing of each MAJCOM's FIM Requirements Matrix and briefing all MAJCOM/CEs annually.

A4.4. MAJCOM Actions. MAJCOMs will validate base and tenant project data in ACES-PM; coordinate tenant data with appropriate MAJCOMs; and ensure all project data from the last FIM submission designated as unfunded is accounted for in ACES. The MAJCOMs will:

A4.4.1. Issue Guidance and Instructions . MAJCOMs will distribute implementation instructions to their installations and geographically separated units.

A4.4.2. Data Validation . MAJCOMs will ensure that installation data is uniformly rated using the definitions for impact ratings in paragraph [A4.2.5](#). The MAJCOM/CEs will be the executive agent to review installation data, resolve any differences with the installations and ensure the data is acceptable for HQ USAF/ILE extraction. The MAJCOM/CEP will utilize the MAJCOM ACES-PM FIM Check Box field to annotate that they have reviewed the record and the record is a valid FIM requirement, ready for submission to HQ USAF/ILER.

A4.4.3. IPT Review. MAJCOMs will provide representation at IPT meetings to review all critical projects and discuss pertinent FIM issues. If discrepancies are found, the MAJCOM will rectify all discrepancies prior to the final submission date.

A4.5. Installation Actions. The installation will validate requirements, assign corresponding impact ratings, obtain installation commander approval and notify the MAJCOM. These actions will allow the MAJCOMs and HQ USAF/ILER to compile the final FIM results and provide feedback to the installations. The effectiveness of the FIM depends on the accuracy of each installation's ACES-PM data, ACES-Real Property (RP) records, and strict adherence to impact rating definitions.

A4.5.1. The BCE will review and update Real Property records and ACES-PM to ensure each facility/project is properly categorized. This includes:

A4.5.1.1. Updating real property records to reflect the proper category codes, user codes, and functional space allocation.

A4.5.1.2. Reviewing ACES-PM data to ensure projects are current and accurate in accordance with this AFI and AFI 65-601, Volume 1, *Budget Guidance and Procedures*.

A4.5.1.2.1. Installations will provide a justification for each critical requirement submitted in the ACES-PM justification field of the project text.

A4.5.1.3. Assigning impact ratings for each requirement.

A4.5.1.3.1. Installations will ensure a process is in place to validate that Restoration and Modernization projects are uniformly rated in accordance with the impact ratings found in paragraph [A4.2.5](#). As the installation executive agent, the BCE will (1) accomplish the initial rating of requirements for review and validation by the installation's Facilities Board, (2) resolve any differences; and (3) prepare the submission for installation commander approval using the installation's existing project approval and prioritization process.

A4.5.1.3.2. BCEs will enter impact ratings in the FIM tab of ACES-PM. Impact ratings will be based on current condition and impact, and not on the projected impact. Critical projects are only allowed in the first two years of the FIM data for a given cycle.

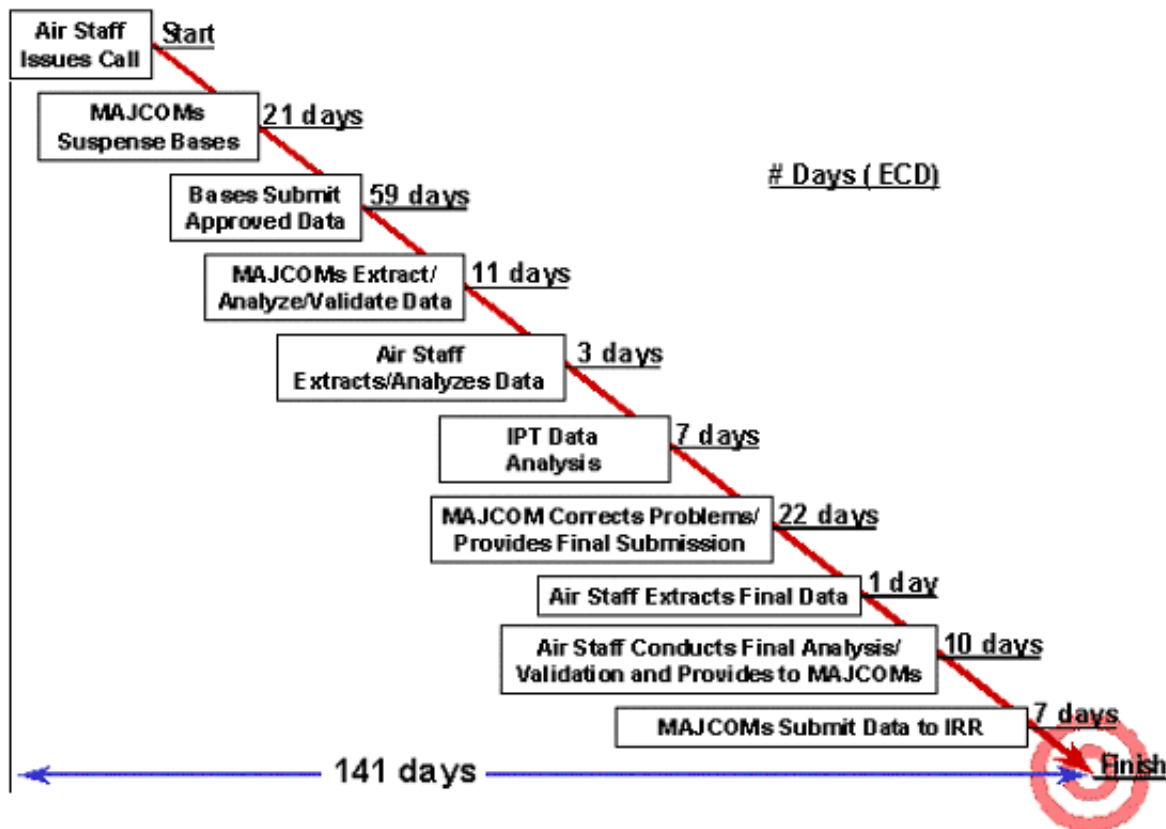
A4.5.1.4. Entering the Installation Commander approved project priority in the ACES-PM Supplemental Information tab Wing Priority field.

A4.5.1.5. Notifying the MAJCOMs when ACES-PM FIM update is complete.

A4.5.2. Tenant commanders will work with host installations to ensure their requirements and impact ratings are correct.

A4.6. Process Timeline. The Air Staff will request FIM data to be provided annually after the end of the fiscal year. The FIM cycle is initiated more than four months before the results are due. The timeline for submission ([Figure A4.1.](#)) should coincide with the annual development of the POM, Financial Plans, and IRR to ensure consistency and minimize duplication of effort.

Figure A4.2. FIM Process Timeline.



A4.7. Case Study Examples of FIM Impact Ratings.

A4.7.1. CRITICAL

A4.7.1.1. Title: REPAIR TAXIWAY E2

A4.7.1.1.1. **Description/Justification:** Repair 100,000 SF of pavement on Taxiway E2. The resin modified portion of taxiway E-2 has about 100,000 SF of pavement that is cracked extensively, resulting in water infiltration into the asphalt and base material. This has resulted in stripping the asphalt away from the aggregate and the retention of water between the two layers of asphalt and within the compacted base material. With the saturated base material and the loss of bond between the two layers of asphalt and the stripping of the asphalt from the aggregate, the pavement deflects when aircraft taxi on or near these damaged areas. Heavier than normal rains have accelerated the pavement deterioration. Airfield operations now close this taxiway during and after significant rainfalls due to the instability of the structural pavement system. Closing this taxiway requires aircrews to back taxi in order to use an alternate taxiway to enter/exit the runway. This reduces the frequency at which aircraft can land and take off from the runway.

A4.7.1.1.2. **Comments:** Current condition causes significant loss of installation/tenant mission capability and frequent mission interruptions (i.e. taxiway is closed during and after significant rainfalls due to instability of the structural pavement system.) Without this project, mission capability will continue to be lost. Therefore, a critical rating is warranted.

A4.7.1.2. Title: CONSTRUCT MUNITIONS PAD

A4.7.1.2.1. **Description/Justification:** Construct a 36,000 SF reinforced concrete munitions pad with lightning protection and access road. The installation mission includes renovating bombs on a recurring basis. A concrete munitions pad is required to park bomb trailers where bomb renovation will be conducted in the Munitions Storage Area. Currently, the installation does not have a munitions pad on which to park the bomb trailers. Installation workarounds are continuously required.

A4.7.1.2.2. **Comments:** In this case, the installation/host mission capability of renovating munitions is significantly impacted due to continuous workarounds. This drives a rating of critical.

A4.7.1.3. Title: REPAIR CHILLER, RADIATION SCIENCE LAB

A4.7.1.3.1. **Description/Justification:** Building 1162 houses the Tri-Service Directed Energy Bioeffects Research Laboratory. The Building houses several species of research animals including non-human primates and rodents, which require strict climate control. Also, the building houses delicate and costly electronic equipment that is sensitive to both heat and humidity and therefore requires precise environmental control. In May of 01, both of the facility's chillers failed, requiring all animals to be moved from the building, which stopped mission testing. Chiller #2 was brought back on line with limited capacity. Chiller #1 is still down and cannot be repaired. Chiller #2 cannot maintain the 64-79 degree temp range when exterior temp exceeds 95 degrees. Tests have been scrapped and animals destroyed because temperatures exceed tolerances. Exterior temp has exceeded 95 degrees 22 times this year suspending test and temp is expected to reach 95 degrees 113 times per year. One chiller cannot provide adequate temp and humidity controls causing testing and research to be suspended on a routine basis.

A4.7.1.3.2. **Comments:** The mission of this installation/tenant is scientific research. Without functional chillers to provide required climate control, mission capability required to conduct scientific research is lost. This results in a Critical impact rating.

A4.7.1.4. **Title: REPAIR DRINKING WATER DISTRIBUTION SYSTEM**

A4.7.1.4.1. **Description/Justification:** The base water distribution system became contaminated making the water non-potable. The installation shut down the system to prevent further contamination and to prevent the base populace from consuming the contaminated water. This curtailed all but emergency flight line operations since water was no longer available to support fire-fighting capability. Additionally, other essential activities were halted due to the lack of water (e.g., maintenance activities, feeding of essential personnel at the flightline kitchen and dining facility, etc.) Further compounding the problem, the distribution system is over 50 years old and in need of repair/replacement. When the base attempted to flush the water distribution system and then pressurize it, numerous water lines broke. These breaks prevented the installation from bringing the water distribution system back on line. Bottled water was procured for mission essential personnel, porta-potties and hand washing stations were provided, and bulk water was shipped in for basic necessities.

A4.7.1.4.2. **Comments:** This project is rated critical due to the significant loss of installation/tenant mission due to lack of water. Flightline operations, as well as other critical activities such as maintenance, are significantly impacted. Additionally, continuous work arounds are required to provide safe water to sustain the base populace.

A4.7.2. **DEGRADED**

A4.7.2.1. **Title: REPAIR RUNWAY LIGHT FIXTURES**

A4.7.2.1.1. **Description/Justification:** Replace all runway light fixtures. Existing light fixtures are old and corroded. These fixtures were installed over 40 years ago and are no longer manufactured. They are obsolete and are not repairable due to a lack of spare parts. All available resources have been cannibalized to keep existing light fixtures operational to the greatest extent possible. Work arounds such as cannibalization and retrofitting old fixtures with new parts are frequently required to keep sufficient airfield lights operational. Retrofitting old fixtures with new parts often results in a poor seal allowing water infiltration and shorted circuits.

A4.7.2.1.2. **Comments:** As light fixtures fail, they cannot be replaced due to lack of parts. Work arounds are often required to prevent limited mission disruption and degradation. Eventually, this can become a "critical" project if a sufficient number of lights fail and the airfield is shut down due to lack of sufficient airfield lighting.

A4.7.2.2. **Title: REPAIR LODGING FACILITY**

A4.7.2.2.1. **Description/Justification:** This 127 room VQ, 21 unit TLF facility is literally falling apart. Ceilings and walls in many units have deteriorated beyond repair. Lead base paint is scaling in many areas, especially in bathrooms. Water infiltration through the outside walls is a major factor in the deterioration. The existing mechanical systems do not control humidity, allowing the moist environment to become unbearably musty and smelly. Because of these extreme problems, the existing building finishes have deteriorated to a point where the entire facility has been closed. The annual cost for the facility closure is over \$2.8 million. This additional lodging burden will be required until this facility is repaired.

A4.7.2.2.2. **Comments:** This project is at a training base which supports numerous TDY as well as PCS personnel. Closing this facility reduces the mission capability of the installation since TDY students must be provided lodging off-base vs. on-base. This results in increased

lodging costs as well as increased commute time which decreases the time students can dedicate to study or training. While not resulting in a significant loss of mission capability, the situation does result in limited loss of mission capability.

A4.7.2.3. Title: REPAIR SANITARY SEWER COLLECTION SYSTEM AND LIFT STATIONS

A4.7.2.3.1. Description/Justification: The installation has experienced numerous raw sewage overflows and discharges due to broken sewer lines, crumbling manholes and failed lift stations. Additionally, significant amounts of rainwater have infiltrated the sanitary sewer system adding to the overflows. Raw sewage has overflowed and discharged into airfield facilities to include aircraft maintenance facilities. These occurrences have caused negative impact to maintenance operations while the discharge is cleaned up. The sewage has also backed up into housing units causing health hazards to the base populace. Base Civil Engineer personnel implement work arounds by pumping sewage from the non-functioning lift station/line into another sewage line. This is very labor intensive and not always successful.

A4.7.2.3.2. Comments: The mission of this installation suffers a limited loss when the sewage overflows/discharges into the flight line facilities. Aircraft maintenance activities are halted. Work arounds are often required, but not always successful. Without a dependable and functioning sanitary sewer system, the mission of the installation will continue to suffer a limited loss. This results in a Degraded impact rating.

A4.7.3. ESSENTIAL

A4.7.3.1. Title: REPAIR EXTERIOR INSULATION

A4.7.3.1.1. Description/Justification: Install Exterior Insulation Finish System (EIFS) on multiple base facilities to provide necessary insulation for energy conservation and occupant comfort. EIFS will also protect facilities from weather and improve the facilities' and base appearance. Current siding is severely degraded and in need of repair. Facility exterior is poorly insulated resulting in increased heating/cooling costs.

A4.7.3.1.2. Comments: Marginal or little adverse impact to installation/tenant mission capability. This project would result in energy savings.